

Amendments to the Claims

Please add new claims 28-30. Please amend claims 1-3, 7, 8, 11, and 15-17. The currently pending claims after amendment, including changes, are listed below.

- 1 1. (Currently Amended) An optical subassembly for an optoelectronic module, comprising:
2 a lens;
3 an encapsulated optoelectronic device;
4 a housing maintaining a predetermined gap between said lens and said encapsulated
5 optoelectronic device;
6 an adhesive interface positioned in said gap between and in physical contact with the lens
7 and the encapsulated optoelectronic device.
- 1 2. (Currently Amended) The optical subassembly as recited in claim 1, wherein said
2 encapsulated optoelectronic device includes a laser.
- 1 3. (Currently Amended) The optical subassembly as recited in claim 1, wherein said
2 encapsulated optoelectronic device includes a photoelectric receiver chip.
- 1 4. (Original) The optical subassembly as recited in claim 1, wherein the lens has a surface
2 the shape of which is selected based on a refractive index of the adhesive interface.
- 1 5. (Original) The optical subassembly as recited in claim 1, wherein the lens is integrally
2 formed with a housing member of the optical subassembly, and wherein the adhesive interface is
3 in physical contact with at least a portion of the housing member that does not comprise the lens.

- 1 6. (Original) The optical subassembly as recited in claim 5, wherein at least a portion of the
2 housing member and the lens is formed from polyetherimide.
- 1 7. (Currently Amended) The optical subassembly as recited in claim 1, wherein the adhesive
2 interface has a predetermined optical transmittance at the operating wavelength of the
3 encapsulated optoelectronic device.
- 1 8. (Currently Amended) The optical subassembly as recited in claim 7, wherein the
2 operating wavelength of the encapsulated optoelectronic device is about 850nm.
- 1 9. (Original) The optical subassembly as recited in claim 1, wherein the adhesive interface is
2 formed by curing an adhesive material selected from the group consisting of acrylic adhesives,
3 urethane-acrylate adhesives, epoxy adhesives, and mixtures thereof.
- 1 10. (Original) The optical subassembly as recited in claim 9, wherein the adhesive material is
2 a urethane-acrylate adhesive that includes a polyurethane oligomer.

1 11. (Currently Amended) An optoelectronic module, comprising:

2 a housing;

3 an electronic circuit board mounted within the housing;

4 at least one optical subassembly connected to the electronic circuit board, the at least one
5 optical subassembly comprising:

6 a lens;

7 an encapsulated optoelectronic device;

8 a subassembly housing maintaining a predetermined gap between said lens and said
9 encapsulated optoelectronic device;

10 an adhesive interface positioned in said gap between and in physical contact with the
11 lens and the encapsulated optoelectronic device.

1 12. (Original) The optoelectronic module as recited in claim 11, wherein the at least one

2 optical subassembly includes a transmitter optical subassembly the optoelectronic device of which

3 includes a laser, and wherein the at least one optical subassembly includes a receiver optical

4 subassembly the optoelectronic device of which includes a photoelectric receiver chip.

1 13. (Original) The optoelectronic module as recited in claim 11, wherein the lens has a

2 surface the shape of which is selected based on a refractive index of the adhesive interface.

1 14. (Original) The optoelectronic module as recited in claim 11, wherein the lens is integrally

2 formed with a housing member of the optical subassembly, and wherein the adhesive interface is

3 in physical contact with at least a portion of the housing member that does not comprise the lens.

1 15. (Currently Amended) A method of making an optical subassembly for an optoelectronic
2 module, comprising the steps of:

3 positioning said optoelectronic device with respect to a housing, said housing maintaining
4 a gap between said lens and said optoelectronic device;

5 applying an adhesive to a lens;

6 applying an adhesive to an encapsulated optoelectronic device;

7 joining the lens having the adhesive applied thereto and the encapsulated optoelectronic
8 device having the adhesive applied thereto;

9 curing the joined adhesive to form an adhesive interface positioned between and in
10 physical contact with the lens and the encapsulated optoelectronic device.

1 16. (Currently Amended) The method as recited in claim 15, wherein said encapsulated
2 optoelectronic device includes a laser.

1 17. (Currently Amended) The method as recited in claim 15, wherein said encapsulated
2 optoelectronic device includes a photoelectric receiver chip.

1 18. (Original) The method as recited in claim 15, wherein the lens is integrally formed with a
2 housing member of the optical subassembly, and wherein the step of applying the adhesive to the
3 lens further comprises applying the adhesive to a portion of the housing member that does not
4 comprise the lens, whereby the adhesive interface is formed in physical contact with at least the
5 portion of the housing member that does not comprise the lens.

1 19. (Original) The method as recited in claim 15, wherein the adhesive includes an adhesive
2 material selected from the group consisting of acrylic adhesives, urethane-acrylate adhesives,
3 epoxy adhesives, silicone-based adhesives, and mixtures thereof.

1 20. (Original) The method as recited in claim 18, wherein the curing step includes the step of
2 exposing the joined adhesive to UV radiation through the housing member.

1 21. (Original) The method as recited in claim 15, wherein the curing step includes the step of
2 heating the joined adhesive.

1 22. (Previously Presented) An optical subassembly for an optoelectronic module, comprising:
2 a housing defining an interior cavity;
3 a lens which refracts light passing between said interior cavity and outside said housing;
4 an optoelectronic device facing said interior cavity opposite said lens; and
5 an adhesive interface filling at least a portion of said interior cavity between said lens and
6 said optoelectronic device, said adhesive interface being in physical contact with said lens and
7 said optoelectronic device, wherein light passing between said optoelectronic device and said lens
8 passes through said adhesive interface.

1 23. (Previously Presented) The optical subassembly as recited in claim 22, wherein said
2 optoelectronic device includes a laser.

1 24. (Previously Presented) The optical subassembly as recited in claim 22, wherein said
2 optoelectronic device includes a photoelectric receiver chip.

1 25. (Previously Presented) The optical subassembly as recited in claim 22, wherein said lens
2 has a surface the shape of which is selected based on a refractive index of the adhesive interface.

1 26. (Previously Presented) The optical subassembly as recited in claim 22, wherein said lens
2 is integrally formed with said housing, and wherein the adhesive interface is in physical contact
3 with at least a portion of the housing that does not comprise the lens.

4 27. (Previously Presented) The optical subassembly as recited in claim 22, wherein said
5 adhesive interface fills substantially all of said cavity.

1 28. (New) The optical subassembly as recited in claim 1, wherein said encapsulated
2 optoelectronic device is a transistor-outline (TO) can.

1 29. (New) The optoelectronic module as recited in claim 11, wherein said encapsulated
2 optoelectronic device is a transistor-outline (TO) can.

1 30. (New) The method as recited in claim 15, wherein said encapsulated optoelectronic
2 device is a transistor-outline (TO) can.